

Observations of Jupiter's Satellites made at the Stonyhurst Observatory. By the Rev. S. J. Perry, D.Sc., F.R.S.

	Sat.	Phenomena.	G. M. T. h m s	Corr. to N. A.	Observer.	Remarks.
1886, April 11	III.	Tr. Ingress, ext. cont.	9 48 17.3		S. J. P.	Definition fair.
		bisection	9 51 47.6		"	
		int. cont.	9 55 48.8		"	
	III.	Tr. Egress, int. cont.	12 34 50.6		W. C.	Sky covered with thin clouds.
		bisection	12 37 16.1		"	
		ext. cont.	12 40 49.1		"	
29	III.	Occ. Reapp. bisection	9 21 31.8		"	Very unsteady.
		last cont.	0 24 52.3		"	
	III.	Ec. Disapp. $\frac{1}{2}$ light	9 59 23.5		S. J. P.	Good.
		v. faint	10 2 15.8	m s	"	
		last seen	10 3 23.3	+4 23.3	"	
30	III.	Ec. Reapp. first seen	12 40 53.4	-0 29.6	W. C.	Good.
		$\frac{1}{2}$ light	12 44 56.9		"	
		full light	12 49 6.9		"	
	IV.	Occ. Reapp. first seen	9 55 26.8		"	Definition very bad.
		bisection	10 4 27.8		"	
		last cont.	10 13 8.9		"	
					"	

Sat.	Phenomena.	G. M. T. h m s	Corr. to N. A.	Observer.	Remarks.
May 6	III. Oc. Reapp. bisection	12 50 43.5		W. C.	
	last cont.	12 55 24.0	m s	"	
III.	Ec. Disapp. last seen	13 58 16.5	+0 21.5	"	
III.	Oc. Disapp. first cont.	9 55 3.5		"	
	bisection	9 58 43.5		"	
	last cont.	10 2 30.5		"	
June 5	II. Ec. Reapp. first seen	12 13 41.5	+0 15.5	"	
	full light	12 17 10		"	
Dec. 28	II. Oc. Reapp. bisection	17 1 5.8		"	} Definition pretty good.
	last. cont.	17 5 4		"	
1887, Jan. 19	III. Ec. Reapp., first seen	15 16 18.5	-1 35.5	"	} Sky hazy.
	$\frac{1}{2}$ light	15 20 43.0		"	
	full light	15 24 5.0		"	
March 3	III. Ec. Disapp., light fading	12 57 20		"	} Pretty good.
	$\frac{1}{2}$ light	13 1 20		"	
	last seen	13 7 56.9	+3 44.9	"	
III.	Ec. Reapp., first seen	14 53 39.7	-3 23.2	"	
	$\frac{1}{2}$ light	14 58 35		"	
	full light	15 2 52		"	

Nov. 1888.

of Jupiter's Satellites.

37

Sat.	Phenomena.	G. M. T. h m s	Corr. to N. A.	Observer.	Remarks.
March 13	I.				
	Ec. Disapp., fading	11 12 46.5		W. J. C.	Definition poor.
		11 17 15.5	m	"	
		11 24 38.0	-0 23	"	
May 7	I.				
	Ec. Reapp., first seen	10 13 7	-0 7	W. C.	Definition good.
	$\frac{1}{2}$ light	10 14 10		"	
	full light	10 16 0		"	
1888, Feb. 15	I.				
	Ec. Reapp., first seen	10 13 24	+ 10	W. J. C.	Definition poor.
	Tr. Egress, last cont.	18 11 8.7		"	
17	III.				
	Ec. Disapp., last seen	15 54 58	+ 1 56	W. C.	Unsteady.
	Ec. Reapp., first seen	17 23 32.0	- 1 29	"	
	full light	17 29 40		"	
	III.				
	Ec. Reapp., first seen	17 23 35	- 1 27	W. J. C.	Dancing.
	$\frac{1}{2}$ light	17 26 6.5		"	
	full light	17 28 43		"	
May 16	I.				
	Ec. Disapp., last seen	12 52 59	-0 9	W. C.	Good.
21	II.				
	Tr. Ingress, ext. cont.	11 57 30		"	Definition very bad.
	bisection	11 59 20		"	
	int. cont.	12 1 42		"	
	II.				
	Tr. Egress, bisection	14 24 18		"	Definition poor. Unsteady.
	last cont.	14 26 50		"	

Sat.	Phenomena.	G. M. T. h m s	Corr. to N. A.	Observer.	Remarks.
May 24	III.				
	Tr. Egress, bisection	10 27 12		W. C.	
	last cont.	10 32 1		"	
	Tr. Ingress, ext. cont.	11 44 49		"	
	bisection	11 48 41		"	
	int. cont.	11 51 40		"	
	Tr. Ingress, bisection	11 48 40		W. J. C.,	Very poor. Dancing.
25	Ec. Reapp., first seen	11 23 33.5	m s -0 3.5	W. C.	
	$\frac{1}{2}$ light	11 25 32		"	
	full light	11 27 44		"	
25	Ec. Reapp., first seen	11 23 49.0	+0 12	W. J. C.	
June 17	Ec. Reapp., first seen	11 34 47	-0 14	W. C.	
	$\frac{1}{2}$ light	11 36 8		"	
	full light	11 37 20		"	

The duplicate observations on May 7, 1887, and on February 17, May 24 and 25, 1888, were made by Mr. Crofton with the Alvan Clark $5\frac{1}{2}$ -inch refractor.

Observers: S. J. P., W. J. C., and W. C. are MM. Perry, Crofton, and Carlisle.

*Observations of Occultations of Stars by the Moon, taken at
Stonyhurst. By the Rev. S. J. Perry, D.Sc., F.R.S.*

1886.	Phen.	Star.	G.M.T. h m s	Limb.	Observer.	Remarks.
Nov. 7	Disapp.	5 Ceti	6 0 40.1	Dark	W. C.	
1887.						
Feb. 6	Disapp.	3 Cancri	9 28 27.76	Dark	W. J. C.	Good
Mar. 8	,,	ρ Leonis	8 50 32.5	,,	J. R.	Excellent.
,, 29	,,	θ^1 Tauri	9 12 1.2	,,	W. C.	
,, 29	,,	θ^2 Tauri	9 19 8.8	,,	,,	
Apr. 2	,,	B.A.C. 2731	8 56 4.3	,,	,,	
,, 25	,,	48 Tauri	8 55 3.7	,,	W. J. C.	
,, 25	,,	,,	8 55 4.1	,,	W. C.	
Oct. 10	,,	ζ^1 Cancri	15 40 52.2	Bright	W. J. C.	
,, 10	,,	,,	15 40 52.2	,,	W. C.	Poor: Limb tremu- lous.
,, 10	Reapp.	,,	16 22 44.5	Dark	,,	Good.
,, 10	,,	ζ^2 Cancri	16 22 50.7	,,	,,	Fair.
Nov. 6	Disapp.	γ Geminorum	10 30 18.4	Bright	,,	
,, 6	Reapp.	,,	11 5 24.5	Dark	,,	
,, 20	Disapp.	B.A.C. 7209	5 35 16.7	,,	,,	
Dec. 27	,,	75 Tauri	6 28 22.3	,,	W. J. C.	
1888.						
Mar. 20	Disapp.	68 Orionis	10 15 47.1	,,	W. C.	Pretty good.
,, 20	,,	,,	10 15 47.9	,,	W. J. C.	
,, 20	Reapp.	,,	11 20 48.9	Bright	W. C.	Fair.
May 20	Disapp.	δ Virginis	12 55 30.5	Dark	,,	Very good.
,, 24	,,	η Libræ	10 50 49.6	Bright	,,	* very faint, diffi- cult.
Sept. 14	,,	50 Sagittarii	10 52 3.9	Dark	W. J. C.	Thin clouds passing.
Oct. 13	,,	20 Capricorni	7 4 35.7		W. J. C.	
,, 13	,,	,,	7 4 36.5		W. C.	

A dark screen was inserted in the eyepiece whenever the star was observed near the bright limb of the Moon. The observations of the Rev. W. J. Crofton were made with the $5\frac{1}{2}$ -inch refractor of Alvan Clark, and Mr. W. Carlisle always observed with the Simms 8-inch equatorial.

Note on the Occultation of χ^1 Orionis, 1888, October 24.
By Rev. A. Freeman, M.A.

This was very well seen here. Star disappeared at $9^h 2^m 8^s.02$ in a hollow of the Moon's bright limb, and reappeared almost instantly from behind the dark limb at $9^h 55^m 26^s.56$. Both times G.M.T. The chronometer had been